OPTION 1. INDUCTOR BUCK CONVERTER WITH JP101 SHORTED AND INDUCTOR INSTALLED.
OPTION 2. FLYBACK CONVERTER WITH JP101 OPEN AND XFMR INSTALLED.

UNREG_DC+
C133 1800UF 50V
R108 1.02K
+12V
R115 10.2
R139 2.61K
Q105 MPSA06
D109 1N4745A 16V
R138 22.1
Q103 BUZ271
L101 47UH
L101 OPEN
D113 MUR120
D112 OPEN
INSTALL D113 OR D112
TV101 OPEN (TVS328)
BAT+
B1BAT+
1:C5
BAT LOAD
R26
R17 OPEN
R34 1.02K
R35 1.02K
R18 OPEN
R19 OPEN
R25 OPEN
R21 OPEN
R3 16 20W
R28 OPEN
OPEN
R120 383K
R128 511K
C126 0.1UF
R119 200K
C118 1000PF 50V
R133 200K
C124 1000UF 25V
R122 10.2K
Q101 BSS295
D105 OPEN (1N4734A) 5.6V
LOAD TEST CONTROL
B1BAT–
BAT–
1:C5
U106 74HC14
D104 1N4148
1:D1 3_3REF
R103 4.75K
R102 21.5K
C106 .047UF
U103 MC34060
PWM
VCC
VREF
DTC
GND
CT
RT
C117 10UF 25V
R137 100 1W
D108 1N4148
SWITCHING POWER SUPPLY
BAY1_EN 3:B3
R121 10.2K
D107 OPEN (1N4734A) 5.6V
Q102 TN0604N3
R129 1.33K
C129 0.01UF 50V
C125 0.01UF 50V
R118 68.1K
Q104 TN0604N3
R130 10.2K
CURRENT LIMITER
D101 SB140
U5 LM324AN
C105 47PF 200V
R116 10.0K
C107 3300PF
R109 3.48K
IBAT CONVERSION
0.0A = 0V
0.1A = .237V
0.5A = 1.19V
1.0A = 2.37V
2.0A = 4.75V
R132 15.4K
C108 0.01UF 50V
R110 115K
U8 LM358AN
VOLTAGE MONITOR
V_BAT1
V10UT
3:A4
C109 47PF 200V
1:D6,2:D7 3:C4 1_2REF
R105 18.2K
R104 1.82K
C113 47PF 200V
R107 1.02K
R106 1.02K
C115 47PF 200V
C116 0.1UF 200V
U8 LM358AN
C23 0.1UF
R111 14.3K
1:D6,2:D7,3:C4 1_2REF
R101 2.74K
R117 44.2K
R127 0.1 1W
R126 23.2K
C114 47PF 200V
VCC
D114 SB140
R112 86.6K
C111 0.1UF
C110 47PF 200V
VBAT CONVERSION
9 = 4.4V
10 = 3.8V
11 = 3.2V
12 = 2.7V
15 = 0.7V
CURRENT MONITOR
R125 1.02K
C120 0.01UF 50V
R142 1.02K
U7 74HC14
CHARGING_SHTDWN+
WATCHDOG
VCC
C101 0.1UF
U101 MAX1232CPA
TOL
PBRST
TD
ST
GND
VCC
RST
RST
D103 1N4148
FT102
FT101
PROD_SEL+ 1:D6,2:D3
WDO–
U104 87C752 9212–0050
VCC
C112 0.1UF
P3.0
P3.1
P3.2
P3.3
P3.4
P3.5
P3.6
P3.7
P0.0/AS
P0.1/CE
P0.2/VP
P0.3
P0.4/PWM
X1
X2
REF+
REF–
GND
AD0/P1.0
AD1/P1.1
AD2/P1.2
AD3/P1.3
AD4/P1.4
INT0/P1.5
INT1/P1.6
T0/P1.7
LAMP DISPLAY SELECT LINES
U104_1
U104_5
U104_4
U104_3
U104_2
U106 74HC14
B1CHRG+ 1:D5
B1RDY+ 1:C5
B1TST+ 1:C5
B1FLT+ 1:C5
U106 74HC14
D102 1N4148
U107 74HC132
MODE CONTROL LOGIC
3:C4,C8 BAY1_EN
SSEL10–
SSEL11–
CHGENB1–
C132 0.01UF 50V
D110 1N4148
74HC132
C131 0.01UF 50V
R141 68.1K
D111 1N4734A 5.6V
R140 487K
CHARGE SELECTION TABLE

SSEL10	SSEL11	CHARGE MODE
0	0	CV CHARGE
0	1	ENABLE TEST MODE
1	0	CC CHARGE
1	1	ENABLE TEST MODE

R114 475 1/4W
Y101 6.144MHZ
VCC
R124 10.2
C103 33PF
C102 33PF
C123 0.1UF
D115 SB140
R143 1.02K V_BAT1 3:C2
R136 1.02K 3_3REF 1:D6,2:C6
R135 1.02K THERM 1:D6,2:C2
B1ALRM– 1:D5
TEST_SWITCH
B1BDET+ 1:D5
R134 475 1/4W
B1TSW– 1:C5
D106 1N4734A 5.6V
R123 100K
(U106) C128 0.1UF
(U107) C130 0.1UF
CLOCK_TEST
C122 0.01UF 50V
TO–92
TO–220AC FRONT VIEW
TO–220 FRONT VIEW

ZOLL
ZOLL MEDICAL CORPORATION
32 SECOND AVENUE
BURLINGTON, MA. 01803

BASE POWERCHARGER
1 X 1
MAIN, PCB
SCHEMATIC

DWG NO.	REV
9301–0171–SC	B

DATE & TIME 6–26–2002_14:40
SCALE 1/1
FILENAME 0171B
SHEET 2 OF 2